

**IN THE CLAIMS:**

Please cancel claim 1 without prejudice or disclaimer, amend claims 2-6, and add new claims 9-13 as follows:

1. (Cancelled)
2. (Currently Amended) A hybridization reaction apparatus for performing hybridization reaction between a biological substance immobilized on a substrate and a biological substance contained in a solution, the apparatus comprising: according to claim 1  
a case for accommodating the substrate immobilized with the biological substance;  
an injecting member for injecting a solution into the case;  
a discharging member for discharging the solution from the case; and  
an agitating member for agitating the solution injected into the case,  
wherein the substrate is a circular substrate with a throughhole at the center, and the agitation member comprises a driver that rotates an agitator placed in the throughhole at the center of the substrate.
3. (Currently Amended) A hybridization reaction apparatus for performing hybridization reaction between a biological substance immobilized on a substrate and a biological substance contained in a solution, the apparatus comprising: according to claim 1  
a case for accommodating the substrate immobilized with the biological substance;  
an injecting member for injecting a solution into the case;  
a discharging member for discharging the solution from the case; and  
an agitating member for agitating the solution injected into the case,  
wherein the agitating member is supported exclusively at a center supporting point thereof so as to be shaken repeatedly to tilt[[s]] the case by moving the two alternate ends of the [[case]] agitating member up and down in a see-saw manner.
4. (Currently Amended) A hybridization reaction apparatus for performing hybridization reaction between a biological substance immobilized on a substrate and a biological

substance contained in a solution, the apparatus comprising: according to claim 1

a case for accommodating the substrate immobilized with the biological substance;

an injecting member for injecting a solution into the case;

a discharging member for discharging the solution from the case; and

an agitating member for agitating the solution injected into the case,

wherein the agitation member comprises an agitation fan attached to the case and a rotation member for rotation the agitation fan.

5. (Currently Amended) A hybridization reaction apparatus according to claim [[1]] 2, wherein the case is detachable.
6. (Currently Amended) A hybridization reaction apparatus according to claim [[1]] 2, wherein the injecting member for injecting the solution comprises a solution selecting valve for selecting between the reaction solution and a washing solution, and an injection pump for sending the solution selected by the solution selecting valve to the case.
7. (Withdrawn) A method for performing hybridization reaction between a biological substance immobilized on a substrate and a biological substance contained in a solution, the method comprising: injecting the solution containing the biological substance into a case accommodating the substrate immobilized with the biological substance; and allowing hybridization reaction while agitation the solution in the case.
8. (Withdrawn) A method for performing hybridization reaction between a biological substance immobilized on a substrate and a biological substance contained in a solution, the method comprising: injecting the solution containing the biological substance and a liquid whose liquid density is lighter than the solution containing the biological substance and thus which does not mix with the solution into a case accommodating the substance immobilized with the biological substance; and allowing hybridization reaction while agitating the solution containing the biological substance and the liquid in the case while keeping the solution phase and the liquid phase separated from each other.

9. (New) A hybridization reaction apparatus according to claim 3, wherein the case is detachable.
10. (New) A hybridization reaction apparatus according to claim 3, wherein the injecting member for injecting the solution comprises a solution selecting valve for selecting between the reaction solution and a washing solution, and an injection pump for sending the solution selected by the solution selecting valve to the case.
11. (New) A hybridization reaction apparatus according to claim 3, wherein the case is shaken by the agitating member for 1 cm in 2 seconds at fastest positions thereof.
12. (New) A hybridization reaction apparatus according to claim 4, wherein the case is detachable.
13. (New) A hybridization reaction apparatus according to claim 4, wherein the injecting member for injecting the solution comprises a solution selecting valve for selecting between the reaction solution and a washing solution, and an injection pump for sending the solution selected by the solution selecting valve to the case.